Growing and Enjoying Lilacs (Syringa): The Queen of Flowering Shrubs

Dr. Mark L. DeBard
Ohio MGV, Franklin County OH
International Lilac Registrar
Board of Directors, Membership Secretary
International Lilac Society

Photo of Lilacs in Bloom

"Lilac" Contents
- Key Facts
- Types of Lilacs
- Flower Forms & Colors
- Growing Conditions & Maintenance
- Making More Lilacs, Pruning
- Cut Lilac Flowers, Perfume, Fragrance
- Public Collections & Festivals to Visit
- Well-Known Lilacs

Lilacs
- 57 flowering shrub genera in the world. Lilacs are one of them.
- Genus of 15 natural (and 10 hybrid) species in the Olive family (Oleaceae)
- Found in temperate woodlands and scrub of hilly or mountain areas.
- Thirteen from East Asia
- Two from Eastern Europe: the common lilac S. vulgaris, and the late lilac S. josikaea (endangered).

Key Facts
- Lilacs are not native to North America (subject to new diseases, insects)
- Import into the USA forbidden, limited exception for Canada.
- Foreign cultivars before 1940. Since then, a few slowly came from Canada.
- Lilacs take 4-5 years to flower

Average Annual Extreme Minimum Temperature 1979-2005

North America Map showing extreme minimum temperatures

Arctic Circle
Tropic of Cancer
Equator
Tropic of Capricorn
Antarctic Circle

Lilac Distribution Map

Central United States
Southern United States
Northeastern United States
North Central United States
Southern Central United States

Average Annual Extreme Minimum Temperature 1979-2005

Temperature (°F) Range | Temperature (°C) Range
---|---
-50 to -60 | -51.1 to -45.0
-40 to -50 | -46.9 to -40
-30 to -40 | -31.4 to -34.4
-20 to -30 | -25.3 to -28.9
-10 to 0 | -28.9 to -23.3
0 to 10 | -17.9 to -12.2
10 to 20 | -12.2 to 6.7
20 to 30 | -6.7 to 1.1
30 to 40 | 1.1 to 4.4
40 to 50 | 4.4 to 13.9
50 to 60 | 13.9 to 20.6
60 to 70 | 20.6 to 21.1

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• 4 Series:
  - Common (Syringa), Littleleaf (Pubescentes), Late (Villosae), Tree (Ligustrina)

• (1) Common species:
  - vulgaris, × hyacinthiflora, × chinensis, × persica

• (2) Littleaf species:
  - pubescens, patula, microphylla

• (3) Late species:
  - josikaea, komarowii, tomentella, × prestoniae, × josiflexa

• (4) Tree species:
  - reticulata, pekinensis

LILAC SERIES CAN'T INTERBREED OR HYBRIDIZE

LILACS DON'T NEED CROSS-POLLINATION

LILACS NOT INVASIVE (ugly sharp fruit) AND NOT NATIVE TO USA

Leaf Comparisons of the Four Lilac Series

1. Series Syringa (Common Lilac)
   - S. oblata (Early lilac)
   - S. vulgaris (Common lilac)
   
   Hybrids:
   - S. ×hyacinthiflora (S. oblata × S. vulgaris) (Hyacinth early lilac)
   - S. ×chinensis (S. protolaciniata × S. vulgaris) (Rouen or Chinese lilac)
   - S. ×persica (Persian lilac)
   - S. ×laciniata (S. protolaciniata × ?) (Lancinate lilac)

(1) Common Series: S. Oblata (Early Lilac)
   - From China; rare in North America.
   - Comes in purple, pink and white colors.
   - Large flowers, earliest season April-May bloom.
   - Reddish leaf edges with some fall color.
   - Great lilac fragrance!
   - Crossed with common lilac for earlier bloom and warm-weather tolerance.

(1) Common Series: S. Vulgaris
   - The common lilac in stores.
   - Comes in lilac and white colors.
   - Native to Eastern Europe.
   - Brought to USA by early settlers 1700's.
   - Largest flowers, mid-season May bloom.
   - Great lilac fragrance!
(1) Common Series: 
S. vulgaris Hybrids

- Over 1,500 cultivars
- 7 official flower colors
- 11 bud colors

'Theodore Parker', 'President Lincoln', 'Agincourt Beauty', 'Albert F. Holden', 'Aleksandra Pakhmutov'

(1) Common Series: 
S. × hyacinthiflora

- Oblata x vulgaris; all are named cultivars.
- Normal vulgaris-type leaf; dark purple hints when young and in fall.
- All seven Wister colors.
- Great fragrance.
- Many singles and doubles; blooms earlier than vulgaris.

Top left clockwise: 'Sweetheart', 'Declaration', 'Pocahontas', 'Sister Justina', 'Doctor Chadwick', 'Esther Staley'

(1) Common Series: 
S. × chinensis

- Protolaciniata x vulgaris (natural, we think)
- Small oblong leaf.
- Color white (rare) to pink to lilac.
- Great fragrance.
- Only one, double form flower cultivar ('Duplex').
- Early blooming

(1) Common Series: 
S. × persica

- 'Persian Lilac'.
- Uncertain parentage, appears 1700.
- Small chinensis-like leaf.
- 4 colors: white, pink, lilac, violet.
- Great fragrance.
- Single flower form only, sterile.

2. Series Pubescentes (Hairy or Littleleaf Lilac)

S. pubescens
- subsp. microphylla
- subsp. patula
- subsp. pubescens
**Littleleaf Series: S. pubescens**

- Korean littleleaf lilac.
- Subspecies pubescens, microphylla, and patula.
- Bloom at end of and after common lilac.
- 3 colors: white, pink, rare purple.
- Most are smaller in height.
- Great lilac fragrance.

**Series Villosae (Late Lilac)**

- *S. josikaea* (Hungarian lilac)
- *S. komarowii* (Nodding lilac)
- *S. villosa* (Late lilac)
- *S. tomentella* (Woolly or Felty lilac)
- *S. microphylla* subsp. *sweginzowii*

Hybrids (Villosae Group):

- *S. ×prestoniae* (*S. reflexa* × *S. villosa*)
- *S. ×josiflexa* (*S. josikaea* × *S. reflexa*)
- *S. ×swegiflexa* (*S. reflexa* × *S. sweginzowii*)
- *S. ×henryi* (*S. josikaea* × *S. villosa*)
- *S. ×nanceiana* (*S. ×henryi* × *S. sweginzowii*)

**Late Series: S. josikaea**

- Late blooming, after the common lilacs and before the tree lilacs.
- Color: white to pink.
- Longer, rougher leaves than the other Series.
- Spicy fragrance.
- Endangered, Ukraine & Romania tiny native habitat only
- Parent of 2 hybrids (josiflexa, henryi)
(3) Late Series: *S. komarovii*
- Two subspecies, komarovii and reflexa.
- Late blooming, after the common lilacs and before the tree lilacs.
- Color: white, pink, rare others.
- Longer, rougher leaves than the other Series.
- Spicy fragrance.
- From China only, rare in North America.
- Parent of 5 hybrids (prestoniae, josiflexa, swegiflexa, nipponiana, sargentii)

(3) Late Series: *S. villosa*
- Late blooming, after common, littleleaf lilac, before tree lilacs.
- Color white to pink.
- Longer, rougher leaves than the other Series.
- Spicy fragrance.
- From China, rare in North America, has a subspecies *S. pekinensis*.
- Parented from hybrids (prestoniae, henryi, nipponiana, sargentii)

(3) Late Series: *S. sweginzowii*
- Late blooming, after common, littleleaf lilac, before tree lilacs.
- Color white to pink.
- Longer, rougher leaves than the other Series.
- Spicy fragrance.
- From China, rare in North America, actually a subspecies of *S. tomentella*, parent of two hybrids (swegiflexa, nipponiana)

(3) Late Series: *S. ×prestoniae*
- Most famous late hybrids from Isabella Preston of Canada between 1928-1953; others since.
- A cross of *S. villosa × S. reflexa*.
- Colors: white, pink, magenta, purple, lilac, violet.
- Longer, rougher leaves than the other Series.
- Spicy fragrance.

Series *Ligustrina* (Tree Lilac)

* S. *reticulata*  
  subsp. *reticulata* (Japanese tree lilac)  
  subsp. *amurensis* (Amur tree lilac)  
  * S. *pekinensis* (Peking tree lilac)  

(4) Tree Series: *S. reticulata*
- Japanese or tree lilacs.
- Two subspecies of reticulata and amurensis (Manchurian or Amur lilac).
- Last to bloom of all lilacs.
- Colors: white with yellow buds.
- Cultivars with better tree form and flowers: e.g. ‘Ivory Silk’
(4) Tree Series: S. pekinensis

- Chinese tree lilac.
- Last to bloom of all lilacs.
- Colors limited to white and yellow.
- Cultivars with better tree form and flowers, e.g. 'Beijing Gold'.
- Smaller than reticulata, cherry tree-like smooth, peeling bark.

Flower Forms: Single, Double, Multipetal
- double only with common lilac (vulgaris) (and anything it is crossed with)

Bud and Flower Color

<table>
<thead>
<tr>
<th>Color</th>
<th>RGB Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>255,255,255</td>
</tr>
<tr>
<td>Pink</td>
<td>201,186,248</td>
</tr>
<tr>
<td>Blue</td>
<td>153,198,249</td>
</tr>
<tr>
<td>Lilac</td>
<td>236,158,225</td>
</tr>
<tr>
<td>Magenta</td>
<td>248,195,206</td>
</tr>
<tr>
<td>Purple</td>
<td>244,131,205</td>
</tr>
<tr>
<td>Magenta</td>
<td>228,185,293</td>
</tr>
</tbody>
</table>

Growing Conditions
- Full sun—6+ hours/day
- Neutral to alkaline soil (pH 6.5-8.0)
- Good drainage—no “wet feet”

Maintenance: what they like:
- Pruning to height once per year
- Pruning within 2 weeks of flowers dying
- 5-12-5 fertilizer every 2-3 years (magnesium)
- Grass and weed-free base with mulch
- 3 foot diameter minimum
- Planting 8 feet apart for hedge
- Planting 12 feet apart for individuals
- Reduce maintenance with compact/dwarfs

Lilac Problems
- Pests: mice, voles, rabbits, occasionally deer
- Insects: borers, scale, aphids, leafminer, root weevil
- Diseases: powdery mildew, other fungi, bacterial blight, witches’ broom (phytoplasma)
- Late Frost/Freeze
Making More Lilacs

Cuttings

- Softwood spring green growth (no brown bark)
- 4-6 inches length
- 2-4 leaves at tip; strip others
- Dip ends in growth hormone (BA, 0.8%)
- Stick 1-2-inch deep in rooting medium
  - Pure coarse sand OR 1:1 Sand + potting soil, perlite, or peat
- Keep leaves constantly moist and humid
  - Misting or fogging system
- Wait 1-3 months, check for roots

Suckers (offshoots)

- Suckers occur naturally in the Common Lilacs
- Rare in other lilac series
- Spring or Fall only
- Dig around sucker, confirm connection to mother plant
- Cut the root connection near mother plant
- Dig up sucker with as many roots as possible
- Could wait for 6-12 months for it to make more roots before potting
- Plant in potting soil and pot, water often first one year

Grafting

- Use rootstock in same Genus (Oleaceae, Olives)
- Privet, Ash, Forsythia, all Lilac Series (2-3 cutting stems)
- Pencil size base is best
- Can be larger with side-grafting
- Desired lilac is called a SCION
- In mid-winter (January), cut 4-6-inch stem with 1-2 buds
- Cut ends to fit into each other
- A learned skill
- Tape or rubber band in place, seal with wax or wax tape
- Wait 1-2 months to see if new growth sprouts
- Expose graft union after 6-12 months

Pruning

- None NECESSARY; will grow to natural size, flower panicles will be higher on bush
- First 2 years; prune central stem for more branching
- After 5 years, prune to reaching height of arm
- Prune flowers within only within 2 weeks of finished bloom
- Rejuvenation pruning for common and hybridized lilacs: 1/3 of largest stems (over 1-2 inches diameter) each year
- Late and tree lilacs usually don’t sucker; no thinning out

Sizes

- Tree Ligustrae:
  - Treeform: 6-12 feet
  - Reticulata (Japanese): 30-50 feet
  - Amurensis (Amur): 10-25 feet
  - Pekinensis (Chinese): 20-30 feet
- Common Syringa:
  - Normal: 10-20 feet
  - Compact: 6-8 feet
  - Dwarf: 4-6 feet
- Late Villosae:
  - Common: 10-20 feet
  - Compact: 5-10 feet
  - Late Lilac:
    - Common: 10-20 feet
    - Compact: 6-10 feet

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Cut Lilac Flowers for Vases

- Remove most leaves so only work is hydrating flowers.
- Can insert full stems later.
- Recut 1 inch off stem ends at 45-degree diagonal.
- Controversy: smash or slice stem end to take up more water.

Making Lilac Oil, Pomade, and Perfume

- All commercial lilac fragrances are synthetic and not authentic.
- Lilac oil can only be made by the secretive process of cold ENFLEURAGE.
- Process for lilacs re-discovered 2017 by retired chemist Charle-Pan Dawson in Cherry Valley, New York who owns a lilac farm; she’s the only one in the world making it.
- https://cherryvalleylilacs.com/blog

Great Public Lilac Collections

- Lilac Museum, Saint-Georges, Quebec—172 cultivars, 540 plants
- Highland Park, Rochester NY—1000 (1200)
- RBG, Hamilton, Ontario—200 (1902)
- Dobles, Latvia—400
- MBG & RAS, Moscow, Russia—400
- Hulda Klager Lilacs, Woodland, Washington—400
- CEF, Ottawa, Ontario—313 (313)
- Holden Arboretum, Kirtland, Ohio—137 (212)
- Montreal Botanical Garden—116 (219)
- Katie Osborne, Lilacs, Royal Botanical Gardens, Hamilton, Ontario Canada
- Longenecker BG, Madison WI—261 (293)
- Montreal Botanic Garden—116 (219)
Local Ohio Public Lilac Collections

- Holden Arboretum, Cleveland: 137 cultivars, 212 plants
- Rowe Arboretum, Cincy: 87 taxa (named cultivars plus species plants)
- Dawes Arboretum, Newark: 50 taxa
- Mt Airy Arboretum, Cincy: 50 taxa

Where To Get Lilacs?

- No central source in USA, unlike Russia; Private Nurseries only
- Hope Springs Nursery
- Great Garden Plants
- Nature Hills Nursery
- Jung Seed Nursery
- Coldwater Pond Nursery
- Fox Hill Lilacs
- White Flower Farm
- Spring Hill Nursery
- McKay Nursery Company
- Grimm’s Gardens
- Bluestone Perennials
- Wayside Gardens

USA Festivals

- Rochester Lilac Festival, Rochester, NY
- Lilac Sunday, Arnold Arboretum, Boston
- Lilac Museum Festival, Detroit, MI
- Lilac Days, Klager Gardens, Woodland WA
- Lilac Time, Lombard, IL
- Mackinac Island Lilac Festival, MI
- Spokane Lilac Festival, Spokane, WA
- Taos Lilac Festival, Taos, NM

The Great Multipedaled Lilac: ‘Rochester’

- Lilacs have 4 petals per floret on each panicle or inflorescence
- 5 or more is called “radial doubling” and is rare and a sign of good luck
- Known record is 28 petals
- Until this year
- ‘Rochester’ has many hybrids (next 3 slides)

The new Multipetalizing Record: 58 Petals!

- On June 6, 2022, a floret from ‘Souvenir d’ Alice Harding’ in Moscow, Russia was found with 58 petals (in an already double floret)
Well-Known Lilacs

Register of Cultivar Names

New 2021 book in print of the online Registry
First print edition in 20 years (no pictures)
3,561 listings from around the world
2,532 unique cultivars, about 1,800 still extant
Hardcover ISBN: 9781736293515 for $35

ILS Lilac Photo & Color Database

Online ILS site for members only
1,487 cultivars and taxons
10,377 photos
$40 USB flash drive non-members
Want to know more?

https://www.InternationalLilacSociety.org

Or Facebook group:
https://www.facebook.com/groups/106502479685645/